B.—GOLD MINING.

I. Gold Production, Dividends and Royalty for the calendar year 1931.

The nominal capital of all companies carrying on operations in Mysore was—

	£.	s.	d.
In December 1931	1,717,000	0	0
and in December 1930	1,717,000	0	0

or the same for both years

The amount of the above capital called and paid up was—

	£.	s.	d.
In December 1931	1,667,737	0	0
and in December 1930	1,667,737	0	0

no change.

The number of Companies which carried on operations during the year was five or the same number as in the previous year, all of which produced gold and paid dividends.

The quantity of fine gold produced—

	Ozs.
During 1931 amounted to	330,434·024
and during 1930 to	329,133·876
being an increase of	1,300·148

The quantity of fine silver produced—

	Ozs.
During 1931 amounted to	22,604·850
and during 1930 to	17,843·988
being an increase of	4,760·862

The total value of fine gold and silver produced—

	£.	s.	d.
During 1931 amounted to	1,560,739	10	4
and during 1930 to (revised)	1,396,145	14	4
being an increase of	164,593	16	0

or an increase of 11·79 per cent as against a decrease of 9·95 per cent (revised) in the previous year; the increase in value is mostly due to high price of gold prevailing in the market and to the small increase in production.

The total amount paid in dividends—

	£.	s.	p.
During 1931 was	219,010	16	0
and in 1930	179,000	0	0
being an increase of	40,010	16	0

The total dividends paid during the year (for all the five companies) amounted to 13·13 per cent of the paidup capital, the corresponding figures for 1930 being 11·82 per cent (revised) of the four dividend paying companies or 10·73 per cent of all the five producing companies.

The royalty payable to Government on the gold and silver won and dividends paid amounted to—

	£	s.	d.
During the year 1931	83,094	0	4
as against in 1930 (revised)	74,060	6	11
being an increase of	9,033	13	5

the increase being 12·20 per cent as against a decrease of 11·71 per cent in 1930 (revised).

II. Total Gold Production, Dividends and Royalty from 1882 to the end of 1931.

The total quantity of fine gold produced from the commencement of mining operations is—

			Ozs.
Up to the end of 1930	...	...	16,592,153·859
and for 1931	...	...	330,434·024
Grand Total	...	...	16,922,587·883

The total value of gold bullion produced—

			£.	s.	d.
Up to end of 1930 (revised)	...	...	71,726,062	19	11
and for 1931	...	...	1,560,739	10	4
Grand Total	...	...	73,286.802	10	3

Total dividends paid—

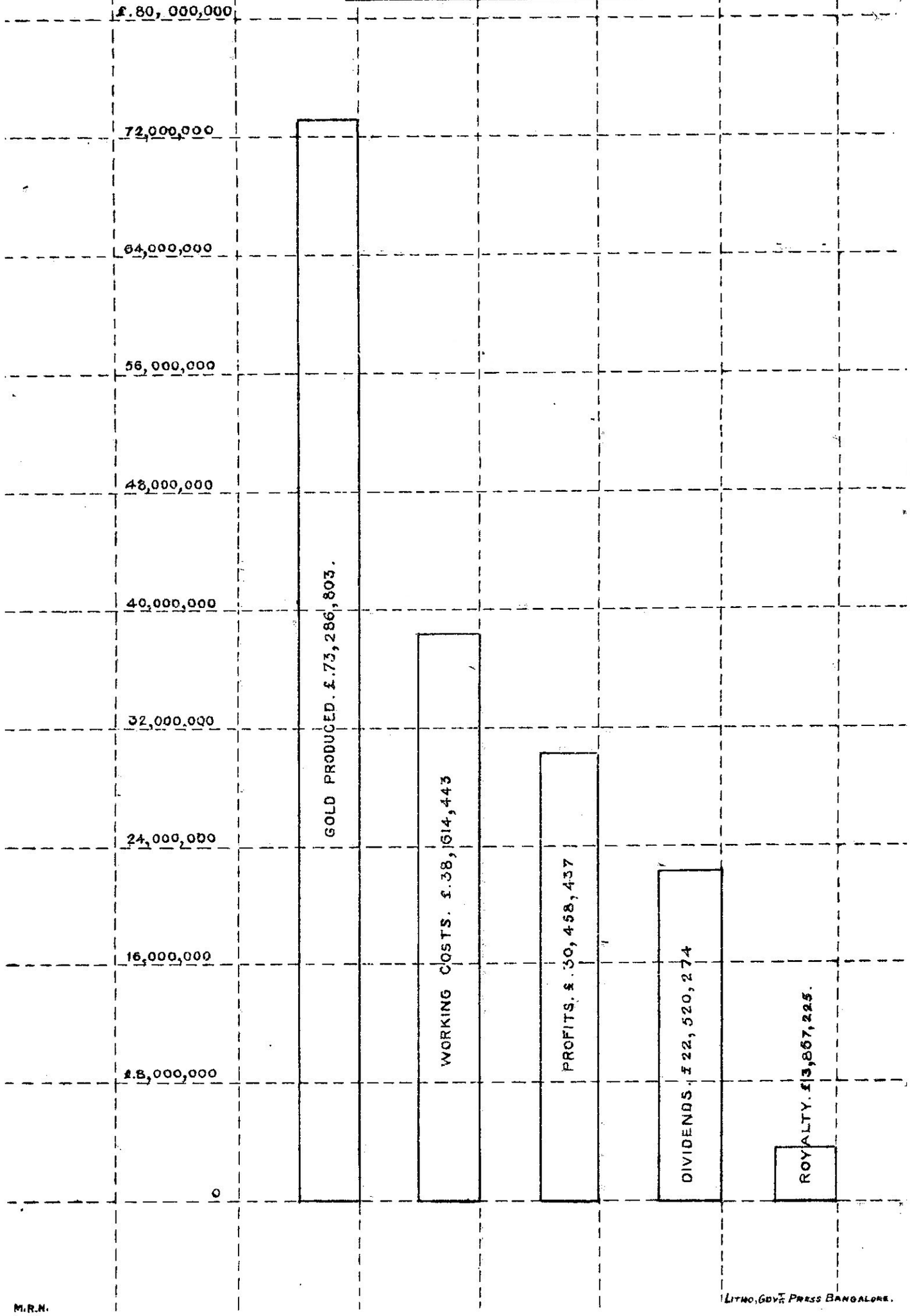
			£.	s.	d.
Up to end of 1930	...	...	22,301 263	8	8
and for 1931	...	...	219,010	16	0
Grand Total	...	...	22,520,274	4	8

The amount of royalty which has been paid to Government is—

			£.	s.	d.
Up to the end of 1930 (revised)	...	...	3,784,130	13	2
and for 1931	...	...	83,094	0	4
Grand Total	...	...	3,867,224	13	6

The total value of gold produced, working costs, profits earned, dividends declared and royalty paid from the commencement of operations to the end of the year 1931 have all been graphically represented in the following chart :—

TOTAL GOLD PRODUCTION IN MYSORE FROM COMMENCEMENT OF OPERATIONS TO END OF 1931.



M.R.H.

LITHO, GOVT. PRESS BANGALORE.

III. Statement showing the amount of royalty payable to Government, the amount paid and the balance still due for the year 1931.

(As furnished by the Comptroller).

GOLD (A)

No.	Name of Mine	Balance due on account of the previous year	Amount due for the current year	Total demand	Collection	Balance due (1st January 1932)
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Mysore	1,18,872 3 0	3,15,612 10 0	4,34,484 13 0	3,38,209 9 0	96,275 4 0
2	Champion Reef ...	66,119 9 0	2,13,956 2 0	2,80,075 11 0	2,18,973 9 0	61,102 2 0
3	Ooregum ...	66,055 9 0	2,00,909 15 0	2,66,965 8 0	1,98,493 10 0	68,471 14 0
4	Nundydroog ...	82,788 12 0	2,72,795 9 0	3,55,584 5 0	2,71,109 0 0	84,475 5 0
5	Balaghat ...	23,453 2 0	(a) 81,370 13 0	1,04,823 15 0	78,720 9 0	26,103 6 0
	Total ..	3,57,289 3 0	10,84,645 1 0	14,41,934 4 0	11,05,506 5 0	3,36,427 15 0
	Total for 1930 ...	2,64,655 10 0	10,06,961 10 0	12,71,617 4 0	9,14,328 1 0	3,57,289 3 0

(a) The royalty paid at 2½ per cent on dividends declared amounting to £501-3-3 or Rs. 6,722-3-0 is not included in this figure.

SILVER (B).

No.	Name of Mine	Balance due on account of the previous year	Amount due for the current year	Total demand	Collection	Balance due (1st January 1932)
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Mysore ...	130 13 0	*303 14 0	434 11 0	262 11 0	172 0 0
2	Champion Reef ...	117 13 0	*364 5 0	482 2 0	261 10 0	220 8 0
3	Ooregum ...	130 2 0	364 12 0	494 14 0	273 0 0	221 14 0
4	Nundydroog ...	151 3 0	428 4 0	579 7 0	332 18 0	246 10 0
5	Balaghat ...	34 13 0	121 0 0	155 13 0	83 9 0	72 4 0
	Total ...	564 12 0	1,582 3 0	2,146 15 0	1,213 11 0	933 4 0
	Total for 1930 ...	615 2 0	1,028 1 0	1,643 3 0	1,078 7 0	564 12 0

*Royalty realised on silver obtained from cyanide slags is included in the figures for gold.

IV.—Gold Production for the six months ending 30th June 1932.

Name of Mine		Fine Ozs.	Fine Ozs.	Value £ Stg. (estimated)
Mysore ...	Current ore	42,887·18		
	Re-treatment of tailings dumps ..	...		
	Other sources	...		
	Total ...	...	42,887·18	238,319
Champion Reef ...	Current ore	28,046·74		
	Re-treatment of tailings dumps ...	4,108·27		
	Other sources	...		
	Total ...	...	32,155·01	173,833
Ooregum ...	Current ore	20,530·96		
	Re-treatment of tailings dumps ...	5,695·34		
	Other sources	59·68		
	Total ...	...	26,285·98	146,229
Nundydroog ...	Current ore	44,689·06		
	Re-treatment of tailings dumps ...	2,645·65		
	Other sources	...		
	Total ...	...	47,334·71	263,431
Balaghat ...	Current ore	8,981·81		
	Re-treatment of tailings dumps ...	...		
	Other sources	5,205·50		
	Total ...	...	14,187·31	78,919
	Grand Total ...	...	162,850·19	900,731

NOTE.—The figures in this statement are subject to revision.

V. Number of Mines.

GOLD.

Active or Producing.

Mining operations were in progress on the following five blocks on the Kolar Gold Field as in the previous year.

1. Mysore Block, comprising Mining Leases Nos. 127, 128, 129, 130, 134, 144, 151 and 152 worked by the Mysore Gold Mining Company, Limited.

2. Champion Reef Block, comprising Mining Leases Nos. 121 and 136 worked by the Champion Reef Gold Mines of India, Limited.

3. Ooregum Block, comprising Mining Leases Nos. 132 and 137 worked by the Ooregum Gold Mining Company of India, Limited.

4. Nundydroog Block, comprising Mining Leases Nos. 123, 139, 145 and 162 worked by the Nundydroog Mines, Limited.

5. Balaghat Block, comprising Mining Leases Nos. 120, 146 and 163 worked by the Balaghat Gold Mines, Limited. These leases were assigned to the Nundydroog Mines, Limited, with effect from 1st May 1932 on the following terms :—

The Balaghat Mining Leases Nos. 120, 146 and 163 comprising 1,818 acres, the mine workings, the pumping plant, winding engines at surface and underground, electric power lines and cables, air mains, compressors, buildings, etc., required for keeping the mine unwatered, and the winding engine with all accessory plant and equipment of the Deep Level Main Winze, were assigned during the year to the Nundydroog Mines, Ltd., for £40,000 to be paid in cash spread over a period of nine months.

For mining and milling the ore reserves, Nundydroog Mines, Limited, makes a charge of 24 s. per ton of ore milled, and after deducting from the net sale proceeds of the bullion recovered, (*a*) royalty of five per cent payable to the Government of Mysore, (*b*) the above charge of 24 s. per ton milled, (*c*) the cost of keeping the Balaghat Mine free of water during the period of this working arrangement, the remaining profit to be divided in the ratio of 75 per cent to Balaghat Mines Limited, and 25 per cent to Nundydroog Mines, Limited.

Inactive or Non-producing.

1. Krishnarajapur Block, Mining Lease No. 119.
2. East Betrayaswami Block, Mining Lease No. 118, option, held by the Mysore Gold Mining Company, Limited.

No prospecting or mining work for gold was done outside the Kolar Gold Field. All the producing mines paid dividends for the year under report, the amount distributed being £219,010-16-0 or 13·13 per cent of the paid up capital of all the Companies, showing an increase of £40,010-16-0. The Nundydroog Company paid the highest rate of dividend, *viz.*, 27½ per cent while Champion Reef and Ooregum Companies paid a slightly higher rate and Mysore Company reduced the rate by 2½ per cent. The Balaghat Company which was unable to pay any dividends during the last year declared a dividend of 10 per cent on ordinary and 20 per cent on preference shares. The high price of gold helped some of the Companies to distribute higher rates of dividends.

The year's operations resulted in an output of 330,434·024 ozs. of gold and 22,604·85 ozs. of silver, an increase of 1,300,148 ozs. of gold and 4,760·862 ozs. of silver compared with last year's production. Correspondingly the total value £1,560,739-10-4 was £164,593-16-0 in excess of previous year....This increase in value was mostly due to the high premium on gold. Details of gold production, value, royalty, etc., are available in Table 1 of this report.

Owing to great depths the mines on this field have reached at present, the working costs are on the increase, details of which are given in Tables 5 and 6 appended to this report.

Ore Reserves.—The estimated total ore reserves of all the mines at the end of the year 1931 shows a decrease of 62,623 tons against a decrease of 127,106 tons at the end of 1930. The Champion Reef and the Nundydroog Mines made considerable additions to their ore reserves, while Mysore, Ooregum and Balaghat being unable to find new shoots of ore were obliged to draw from the reserves.

The following statement gives the estimated reserves of ore at the end of 1931 compared with 1930:—

	1930	1931	Difference +more or- —less	Average tonnage crushed during the preceding 5 years
Mysore	471,418	445,260	—26,158	214,749
Champion Reef	229,127	239,055	+9,928	99,548
Ooregum	215,500	174,047	—41,453	150,641
Nundydroog	302,827	319,656	+16,829	127,200
Balaghat	41,523	19,754	—21,769	44,730
Total ...	1,260,395	1,197,772	—62,623	636,868

Ventilation.—All possible arrangements are being made to ensure an adequate supply of fresh air to all the working places. The Champion Reef and Ooregum Mines have reached a vertical depth of over 7,100 feet below the field datum. All the new shafts and winzes which serve as air ways are smooth lined in brick or concrete not only to minimise the effects of rockbursts but also to reduce friction, and electrically driven fans have been erected in the course of the main air-ways at suitable places to aid the circulation of air currents. The question of providing adequate ventilation in deep mines is a very difficult problem and it is engaging the serious attention of expert ventilation Engineers in all mining centres as here. The complex nature of it will be better appreciated when it is remembered that the rock temperature at the depth to which these mines have now attained is about 124°F., and the dry bulb temperature at the working points in the bottom levels ranges from 104°F. to 111°F., and the wet bulb from 87°F. to 93°F., the difference between the two temperatures ranging generally from about 11 to 24 degrees.

Rescue Station and Safety-First Campaign.—The rescue station, as usual, is being maintained in a very efficient condition and though there was no serious outbreak of fire this year comparable to the one that occurred in Nundydroog Mine last year, there were a few occasions when the services of the proto gangs were requisitioned. These gangs were able to locate the seat of fire in each case without loss of time and put it out before causing any damage to person or property. Since the disastrous fire of last year, certain additional precautions have been taken by providing refuge stations with compressed air jets at suitable places. The fire alarm signal is communicated to the under-ground workmen by pouring a sufficient quantity of eucalyptus oil in the air mains and all the men have been warned to run to the riding shaft and reach surface immediately the smell of eucalyptus is felt. It was found in practice that the smell of eucalyptus oil was felt at the bottom workings of the mines, 7,100 feet below, in three minutes.

The 'safety first' campaign to prevent accidents is being carried on vigorously as usual and a large number of Indian workmen are trained in 'first aid' methods to render assistance in cases of accidents underground. In addition to this, the 'scout movement' which has recently been organised, is spreading rapidly amongst the workmen making them more efficient, self-reliant and resourceful. It is hoped that the present enthusiasm for the spread of the movement will continue unabated.

Base Minerals.

The great slump in the world's markets for the two important base metals of the State, Manganese and Chromium, continues the same as last year. The United Steel Companies, Limited, Workington Iron and Steel Branch, Shimoga, the biggest manganese concern in the State, and the Peninsular Minerals Company, Limited, have both surrendered their leases abandoning large quantities of low grade ore on the mines due to the universal trade depression. The Keshapur Manganese Mine worked by Mr. H. D. Coggan, is producing small quantities of high grade pyrolusite (Manganese dioxide) which is being shipped to London market. Except this, all other manganese blocks in the State are dormant.

The following extract from the Mining Journal of 7th May 1932 regarding Indian Manganese is of interest :—

> " Manganese Depression.—The Indian Manganese Ore industry has been hard hit, and that the condition of the industry is worse to-day than it had ever been since it was started is the opinion expressed by Mr. Bartlett, General Manager of the C. P. Manganese Ore Company and President of the Mining and Geological Institute of India. The position is due to the general trade depression and particularly to the dumping of the Russian Manganese Ore in the world's markets. There was both a reduced demand and prices also were brought down by the Russian dumping at very low prices ..... The plight of the industry can be realised from the fact that between 1920 and 1930 the average production of Manganese Ore per annum was 600,000 tons, but to-day it has fallen to about 100,000 tons."

The Chrome Ore industry of the State has also received a serious check. Most of the chrome mining concerns have suspended operations except at Sinduvalli Mine, Mysore Chromite, Limited, which is producing comparatively small quantities of high grade chromite against secured orders. This collapse is in the main attributable to over-production from new fields in Russia and elsewhere. By quoting competitive prices they have managed to get a footing in the world's market. Southern Rhodesia contains enormous deposits of high grade chrome, the ore reserves being sufficient to supply the world's normal demands for many years. Due to collapse of the base metal markets of the world, there was a large decrease in Rhodesian output from 293,116 tons in 1929 to 89,974 tons in 1931.

VI.—Notes on Mines.

Mysore Mine.

The normal work of this mine during the year was seriously hampered by a series of very heavy rockbursts which caused considerable damage to shafts, levels and stopes resulting in reduced output. A total of 182,731 tons of current ore milled yielded 95,987·618 ozs. of fine gold as compared with 190,829 tons and 101,826·978 ozs., during the previous year—a decrease of 8,098 tons and 5,839·360 ozs., respectively. Though the output was less the total realisation was better owing to the increased price of gold during the latter part of the year from 85 sh., an oz. to 110 sh., at which figure it is more or less steady. The value of bullion produced was £449,896-0-10, being an increase of £18,717-16-10 over that of last year. The mining of certain rich pillars of ore commenced during the previous year was continued this year also yielding 5,289 ozs. of gold. The cost per ton milled, inclusive of administration, rose from 29·98 sh. to 33·95 sh., owing to increased expenditure on reconditioning of the damaged parts of the mine. The estimated ore reserve at the end of December 1931 was 445,260 tons—a reduction of 26,158 tons as compared with last year's estimate.

Development.—The short length of quartz reef encountered while driving the Main Haulage at the 76th level is being developed in depth by sinking a Pilot Winze which reached a depth of 77 feet at the end of the year exposing ore of good value throughout. The exploratory work carried out between the 67th and 73rd levels, Edgar's Auxiliary Shaft was satisfactory. The discovery of a new body of ore on the north side of the slide in the 45th level, McTaggart's Section, has resulted in a small addition to the ore reserves. Exploratory work carried out at the 790 ft. level, McTaggart's Incline, has exposed a few blocks of payable ore. Further development in depth of the far east reef in Pilot Shaft mentioned in last year's report was abandoned as no discovery of any importance was made.

The sinking of Edgar's Sub-Vertical Shaft is being continued and it holed through to the 76th level Main Haulage. Arrangements are in progress to continue sinking two auxiliary vertical shafts at the north aud south ends of the main haulage.

Auxiliary travelling and haulage ways in the footwall of the reef at certain horizons, referred to in last year's report, are almost nearing completion. As some of the reef drives have become inaccessible owing to rockbursts, the remnants of ore pillars will be worked from these footwall drives as a safety-first measure.

The deepest point in the mine was the bottom of Pilot Winze 152 feet below the 76th level or, 6,320 feet vertically below field datum.

Ventilation.—The installation of the electrically driven 50″ fan at the 51st level, Ribblesdale's No. 2 Auxiliary Shaft, was completed during the year and this greatly improved the ventilation of the stoping area above this horizon. Several connections between levels and shafts were effected to improve air circulation.

General.—Two Mancha electric battery locomotives are in use, one at the 51st level, Edgar's Shaft, and the other at the 44th level McTaggart's Vertical Shaft—and at both these places fully equipped charging stations have also been provided.

The programme of building packwalls in stopes and arching the levels in concrete or brick is being continued to minimise the effects of rockbursts.

During the year, 3,154 feet of diamond drilling was done underground but nothing of value was discovered.

Champion Reef Mine.

During the year, 98,930 tons of current ore and 228,226 tons of old tailings treated, produced 65,702·743 ozs. of fine gold, being an increase of 3,060·286 ozs., over that of last year. The total realisation for the year amounted to £ 308,637-11-6 yielding a profit of £ 68,624-9-2 — an increase of £ 26,045-14-6, resulting in the payment of a dividend of 1 sh. 6 d. per share or 15 per cent. An addition of 9,928 tons was made to the ore reserves which were estimated at 239,055 tons at the end of the year.

Development.—The ore shoot discovered in the southern section is being vigorously developed in the bottom levels and the 75th level is being driven on at present and the results achieved so far are highly satisfactory.

The new west reef discovered in the 70th level in the northern section of the mine was driven on for 623 feet, but the whole length of it was unproductive; driving north is being continued on the same reef.

Under arrangement with the Mysore Gold Mine, the 70th level drive S. is being extended into their property and nothing of importance has yet been discovered here.

Development work is also being carried out in the top levels of Tennant's and Carmichael's Shafts at the 800 and 300 ft. levels to prove " Mundy's lode " which is 400 ft. west of the main lode. A good length of payable ore was opened up at the 800 ft. level and the driving at the 300 ft. level has not progressed far enough to intersect the reef.

The sinking of the three important shafts, Heathcote Shaft, the North Development Winze and the South Development Winze, was continued and all of them reached varying depths below the 74th level. The deepest point in the mine was the sink of North Development Winze—76th level—7,180 feet below field datum.

Ventilation.—The installation of a 53″ " Sirocco " fan at the 59th level, Glen's Secondary Shaft, has considerably improved the ventilation of the working places in the deeper levels. The North Ventilation Winze which is 12′ × 8′, elliptical and concrete lined, has been completed from the 67th to the 72nd level, forming the main upcast airway in the north section of the Mine, while Glen's Main Winze serves as the main upcast in the south section.

An average of 99,239 cubic feet of air per minute was found to be entering the mine through the downcast shaft at a temperature of 70°F. dry and 65°F. wet (average).

Ooregum Mine.

Though there was a decrease of 680·005 ozs. in the production of fine gold during the year, the total realisation was better by £ 30,700-14-7 owing to the premium on gold, which enabled the company to pay dividends on both the preferential and ordinary shares, while former shares alone received dividends during the previous year. The average assay value of the ore milled fell from 7·64 dwts. to 7·51 dwts. per ton and the total tonnage milled also dropped from 143,761 tons to 135,095 tons, while the old tailings retreated was increased from 225,739 tons to 260,905 tons

to make up the deficiency in the current ore. The estimated ore reserves at the end of the year was 174,047 tons, being a decrease of 41,453 tons as compared with the previous year's figure.

Development.—Exploratory work as detailed in last year's report is being continued and the persistence of the ore body in depth is an encouraging feature. Development in the intermediate levels—74th and 75th—was confined to the extent of the reef—appreciable lengths of which were opened up in both Bullen's and Auxiliary Sections—but the values were not altogether satisfactory.

Through levels connecting the main shafts are driven every three hundred feet. The 76th level is being developed at present and will be driven from end to end of the property and further development will be commenced from this horizon.

The sinking of Bullen's Incline and Auxiliary Shafts was continued, the former reaching a depth of 42 feet and the latter 26 feet below the 76th level. The deepest point in the mine was the sink of Bullen's Incline, 7,068 feet vertically below field datum.

Ventilation.—About the end of the year, the ventilation system was altered whereby the Auxiliary Shaft which was upcast was turned downcast by diverting the downcast air from Oakley's Shaft at the 52nd level. The downcast air which reaches the 76th level through this shaft is forced to return through air ways and worked out stopes to the 50th and the 44th levels where it joins the main upcast air currents in the circular shaft. This arrangement did not interfere with the north section of the mine where Bullen's Incline remained the main downcast air way as before. The existence of two fresh air columns at the ends of the mine is of great importance in case of a fire in the stoping areas, when they can be used as places of refuge or bases for fire fighting.

Nundydroog Mine.

In spite of the disastrous fire in May 1931 which seriously affected the normal output of the mine for four months, the total gold production for the year amounted to 79,935·841 ozs. showing an increase of 1,365·833 ozs. obtained as a result of the higher grade of ore treated—the average assay value being 11 dwts. 11 grs. as compared with 10 dwts. 19 grs. in the previous year. The total value of bullion produced amounted to £ 378,450-11-11 yielding a profit of £ 116,020-10-0 as compared with £ 100,408-16-3 for the preceding year—an increase of £ 15,611-13-9, mostly due to the premium on gold during the latter part of the year. A total dividend of 2 sh. 9 d. per share or 27½ per cent as compared with 25 per cent in the previous year was distributed to the share holders. The increase of 2·81 shillings per ton in the working cost was entirely due to increased expenditure as a result of the fire.

Development and exploratory work had to be suspended during the period of fire with the result that only 16,829 tons were added to the ore reserves which at the end of the year was estimated at 319,655 tons.

Development.—The results of the exploratory work carried out in all the three sections of the mine—Oriental, Kennedy's and Taylor's—were highly encouraging and large bodies of payable ore have been opened up. The considerable length of payable reef encountered in the 54th level N., Oriental Section, was found to persist in depth up to the 57th level where it is being driven on at present with very encouraging results. The development of the ore shoot in Kennedy's Section was not quite satisfactory as only short lengths of payable reef were found in the 54th and the 55th levels. In the southern section—Taylor's—development work was considerably hampered owing to No. 3 Auxiliary Shaft being flooded during the fire. Lenticular bodies of payable ore are being opened up occasionally in this section of the mine and the prospects are encouraging. The 57th level N., commenced by the Ooregum Mine last year was continued into this mine and driven for 151 feet on payable ore of good width.

The sinking of the three auxiliary shafts was continued during the year. The deepest point in the mine was the sink of No. 1 Auxiliary Shaft, which has reached a depth of 5,211 feet below field datum.

Ventilation.—Following the assignment of the leases of the adjoining Balaghat Gold Mine to this Company on 1st May 1932, the scheme of ventilation detailed in the last year's report had to be completely altered in the north section to suit both

the mines. The Deep Level Main Winze and other Shafts of the Balaghat Mine will form the main upcast air-ways for both the mines. A new fan chamber is being cut at the 45th level Deep Level Main Winze for a fan in the course of main upcast air-ways and the existing fan at the bottom of Henry's Shaft—the main downcast shaft, will be put out of commission. At the southern end of the property a fan chamber will be cut at the 48th level, Taylor's Shaft, and the existing fan at the 50th level in this section will be transferred to the new chamber.

Reduction Plant.—The Tube Mill and the Classification Plants were reconstructed during the year and 12 blanket machines have replaced the old blanket tables. The treatment of old tailings of Sonnakuppam Tank was commenced during the year but the operations are beset with many difficulties owing to the presence of deleterious matter which necessitates ploughing, weathering and screening the tailings before treatment.

Balaghat Mine.

As a result of crushing increased tonnage of high grade ore combined with the prevailing premium on gold, this Company was able to earn sufficient profit during the year to wipe off last year's debit balance and distribute dividends to the shareholders. The tonnage treated, 41,850 tons—an increase of 2,650 tons over the last year's tonnage crushed—produced 25,811·966 ozs. of fine gold valued at £ 122,895-18-0 yielding a profit of £ 14,376-15-7 which with the income derived from other investments amounted to £ 22,147-9-1 available for distribution to the share holders. A dividend of 20 per cent on preference shares and 10 per cent on ordinary shares amounting to £ 20,166-10-0 were paid.

The reserves of ore estimated at the end of the year stood at 19,754 tons.

Development.—The results of further exploratory work carried out during the year proved very disappointing. The levels driven on the lode North of No. 3 Winze and the winzes sunk at various points below the 48th level disclosed the continuity of the reef in depth but no part of it was of any appreciable value. The 55th level North of No. 3 Winze had to be suspended during the year owing to repeated rockbursts.

The sinking of the No. 1 Deep Level Main Winze and the No. 3 Winze S. was continued, the former reaching a depth of 164 feet below the 56th level or 5,409 feet vertically below surface—the deepest point in the mine.

General.—In view of the unfavourable outlook of the mine and the limited resources available for further exploration, the Directors recommended the cessation of operations and transfer of the property to the adjoining Nundydroog Mines, Ltd. As the shareholders agreed to the above recommendations the mining lease of this Company, comprising 1,818 acres of land, the mine workings, the pumping plant, winding engines at surface and underground, electric power lines and cables, air mains, compressors, buildings, etc., were assigned to the Nundydroog Mines, Ltd., for a consideration of £ 40,000 payable in cash spread over nine months. The future working of this mine will be carried on by the Nundydroog Mines, Ltd. The old Company may probably go into liquidation about the end of the year by which time it is hoped that all the available ore reserves will have been fully worked out.

Pensamudra Chrome Mine, Mysore Chromite, Ltd., Arsikere.

No Development or mining work was carried out in this mine during the year as there was no market for the low grade ore available here. An experimental concentrating plant was installed and 32 to 34 per cent ore was concentrated to 51 to 51·5 per cent Cr_2O_3, but the cost of concentration was found to be more than that of the crude ore of the same grade.

Shinduvalli Chrome Mine, Mysore Chromite, Ltd., Mysore District.

During the year 3,272·75 tons of reef ore, 251·7 tons of pebbles and 17 tons of powder were produced. Due to general trade depression and restricted demand for this ore, mining was carried out on a limited scale. Concentration of ore by hand washing and screening by wet process was carried out on a small scale and 17½ tons of concentrate produced.

Development.—The total development work including the sinking of shafts and winzes, rising, driving levels and crosscuts amounted to 182 ft.

N. S. 3 shaft was sunk to a depth of 365 ft. and suspended. A rise from the crosscut west at the 272 ft. level has been holed through to the 230 ft. level for a chute.

N. S. 2 shaft was stripped and fully timbered to a depth of 27⅔ ft. and this work will be continued to the 110 ft. level.

General.—Social amenities such as Reading Room, Badminton Court, etc., have been provided for the benefit of the employees.

VII.—Electric Power Supply.

(a) *Cauvery System.*

The following statement, kindly furnished by the Chief Electrical Engineer to Government, shows the number of motors in service and the power consumed by the different mines during the calendar year 1931 :—

Name of Mine	Number of motors in service	Nominal H.P.	Rated H.P.	Average constant H.P. absorbed	Annual consumption in B.T.U.
Mysore ...	47	4,918·5	4,268	2,985	19,503,700
Champion Reef ...	31	4,059·9	3,688	2,718	17,762,000
Ooregum ...	32	4,782·5	3,699	2,841	18,570,000
Nundydroog ...	27	3,459·5	2,964	2,092	13,672,200
Balaghat ...	24	1,622·5	1,484	1,019	6,658,500
Total ...	161	18,842·9	16,103	11,655	76,166,400
Total for 1930 ...	155	18,530·4	15,789	11,161	72,936,000

(b) *Kolar Mines Power Station, Ltd.*

The following notes have been kindly furnished by Mr. G. W. Richardson, Chief Electrical Engineer, for the year ended 30th June 1932 :—

At the 30th June last, 273 motors with an aggregate horse-power of 26,193·75 were connected to this Company's distribution system and of that number 95 motors aggregating 19,102·25 H. P. were operating Winding Engines and Hoists, while the remainder, namely 178 motors with a total of 7,091·50 H. P. were being used to drive intermittent loads of other classes.

The consumption of power for different purposes during the year is given below in Board of Trade Units :—

	Intermittent Power.	*Hoisting.*	*Lighting.*
	8,317,195	9,499,560	684,984
Total Units sold during the year	18,501,739		

The rates prevailing at 30th June 1932 were as follows :—

Intermittent power	...	...	...	...	·5 d.
Hoisting ,,	...	...	...	...	·7 d.
Lighting ,,	...	...	...	...	4·5 d.

The horse power of 156 motors which were connected to the Cauvery System at June 30th totalled 16,073 at Government ratings, or 19,305½ at manufacturers' ratings. Adding the latter figure to the figure for the Kolar Mines Power Station, Limited, a total of 45,499·25 is arrived at as the total horse-power of motors in service on the Mines at 30th June 1932.

No Stoppages owing to scarcity of water were experienced during the period in question.

Comparative Statement of Power Consumption.

Official year	Cauvery Power		Kolar Mines Power		Total number of motors in use	Total consumption in B.T.U. from both stations
	Number of motors in use	Annual consumption in B.T.U.	Number of motors in use	Annual consumption in B.T.U.		
1921—22 ...	118	80,188,542	133	5,681,125	251	85,869,667
1922—23 ...	145	88,834,223	152	6,897,125	297	95,731,348
1923—24 ...	160	93,399,813	163	7,380,080	323	100,779,893
1924—25 ...	165	95,533,550	164	7,662,490	329	103,196,040
1925—26 ...	166	90,421,604	172	8,262,284	338	98,683,888
1926—27 ...	149	85,214,687	198	11,149,016	347	96,363,703
1927—28 ...	143	97,190,966	219	13,968,284	362	111,159,250
1928—29 ...	151	84,109,600	237	14,557,406	388	98,667,006
1929—30 ...	156	80,945,652	260	15,071,035	416	96,016,687
1930—31 ...	158	82,646,288	276	18,405,923	434	101,052,211
1931—32 ...	161	75,766,200	273	18,501,739	434	94,267,939

From the above figures it will be seen that the consumption of Cauvery Power is generally on the decrease and that of Kolar Mines Power on the increase and that the total consumption in B. T. U. from both the stations reached its maximum in the year 1927-28 and has since then been fluctuating.